

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
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# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference  0656-027WO1		Date of mailing (day/month/year) <b>19 MAY 2005</b>
International application No.  PCT/US04/41278		FOR FURTHER ACTION See paragraph 2 below
International filing date (day/month/year)  10 December 2004 (10.12.2004)	Priority date (day/month/year)  12 December 2003 (12.12.2003)	
International Patent Classification (IPC) or both national classification and IPC  IPC(7): A61L 2/00, 9/00 and US Cl.: 422/1, 2, 21, 38, 307; 435/2; 165/65		
Applicant  CHARM SCIENCES, INC.		

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Krisanne Jastrzab  Telephone No. 703-308-0661
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Form PCT/ISA/237 (cover sheet) (January 2004)

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US04/41278

**Box No. 1 Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format  
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
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**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-96</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-96</u>	NO
Industrial applicability (IA)	Claims <u>1-96</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-96 lack novelty under PCT Article 33(2) as being anticipated by Charm et al., U.S. patent No. 5,389,335.

Charm et al., teach reducing or inactivating viral and bacterial contamination of a proteinaceous solution where the solution is rapidly heated using microwave radiation, followed by rapid cooling, both to temperatures and within the time parameters instantly claimed. The system included a disposable cartridge employ TEFLON tubing, of a diameter as instantly claimed, for flow of the solution within the microwave field. The cartridge mounted on a removable plate. See column 1, lines 19-61, column 2, lines 10-16, 24-28 and 45-60, column 5, lines 10-68, particularly 50-55, column 6, lines 1-68 and column 8, lines 25-35.

Claims 1-96 lack novelty under PCT Article 33(2) as being anticipated by Charm U.S. patent No. 4,975,246.

Charm teaches reducing or inactivating viral and bacterial contamination of a proteinaceous solution where the solution is rapidly heated using microwave radiation, followed by rapid cooling, both to temperatures and within the time parameters instantly claimed. See column 1, lines 29-32, column 2, lines 5-68, column 3, lines 25-32, column 5, lines 3-15, and column 6, lines 49-55.